R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

RE: THE CLAIM AMENDMENTS

Independent claims 30, 33, 34, 37 and 39-42 have been amended to more clearly recite the (column) item titles as (column) item category titles that identify respective categories of the data segments.

In addition, claims 30 and 33 have been amended to correct a minor grammatical informality of which the undersigned has become aware.

No new matter has been added, and it is respectfully requested that the amendments to claims 30, 33, 34, 37 and 39-42 be approved and entered.

It is respectfully submitted, moreover, that the amendments to the claims are clarifying in nature only, and do not narrow the scope of the claims either literally or under the doctrine of equivalents.

RE: THE SPECIFICATION AMENDMENTS

The specification has been amended to provide antecedent basis for the term "item category title." Clearly, no new matter has been added, and it is respectfully requested that the

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amendments to the specification be approved and entered, and that

the objection to the specification be withdrawn.

RE: THE REJECTION UNDER 35 USC 112

In item 1 on page 2 of the Advisory Action, the Examiner

refers to pages 21-23 of the specification and asserts that

"column items" as defined to in the specification may correspond

to, for example, "Chris," "New York" or "408-228-6611."

It is respectfully pointed out, however, that the data

referred to by the Examiner corresponds to data that might be

entered in one row of one column item. That is, "Chris" might be

an entry in one row in the column item "name;" "New York" might

be an entry in one row in the column item "state;" and "408-228-

6611" might be an entry in one row in the column item "phone."

And it is respectfully pointed out that the disclosure in the

specification at pages 21-23 clearly explains that column items

refer to categories of data rather than particular segments of

data.

For example, the specification explains at page 21,

lines 8-16 that:

> The database is encrypted using a column
> key and a row key. That is, when a column
> item frequently used in a retrieving process
> comprises 'name', 'state', and 'age', the
> data of each row of the column item is
> encrypted using a column key common among
> column items such as the 'apple', 'orange',

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'lemon', etc. as shown in FIG. 6, and the
data of each row of other column items
'weight', 'height', and 'phone' is encrypted
using a key specific to each row.

And the specification explains at page 23, line 24 to

page 24, line 2 that: "In the example shown in Fig. 20(a), the

column items used in a retrieving process are 'name', 'state',

and 'age', and the column item not to be encrypted is 'number'."

Thus, the column items are explicitly identified on

pages 21-24 of the specification as, for example, "number,"

"name," "state," "age," "weight," "height," and "phone." That

is, the column items as described in the specification are

<u>categories</u> of data segments, in the manner of the (column) item

<u>category</u> titles recited in amended independent claims 30, 33, 34,

37 and 39-42.

In addition, it is respectfully pointed out that page 21,

for example, of the specification clearly refers to "<u>each row</u> of

the column item" and "<u>each row </u>of other column items" (emphasis

added). Thus, it is respectfully submitted that according to the

disclosure in the specification the column items <u>clearly</u> include

multiple rows.

In view of the foregoing, it is respectfully submitted that

the "column items" described in the specification clearly

correspond to the (column) item <u>category</u> titles recited in

amended independent claims 30, 33, 34, 37 and 39-42. And it is

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respectfully requested that the rejection under 35 USC 112 be

withdrawn.

THE PRIOR ART REJECTION

Claims 30-42 remain finally rejected under 35 USC 103 as

being obvious in view of the combination of USP 5,963,642

("Goldstein") and USP 5,915,025 ("Taguchi et al"). This

rejection, however, is again respectfully traversed.

On page 3 of the Advisory Action, the Examiner asserts that

Goldstein discloses at least one item title for specifying a

corresponding at least one data segment group as a target of a

data search process at column 12, line 64 to column 13, line 3.

This section of Goldstein discloses:

> The present invention pertains to a method
> for secure storage of data. The method
> comprises the steps of storing semantically
> encrypted data in a memory. Next there is the
> step of performing database operations with
> semantically encrypted data from the memory
> without requiring decryption of the data.
> Then there is the step of obtaining data from
> the memory.

That is, Goldstein discloses at column 12, line 64 to column 13,

line 3 that the invention described therein relates to storing

semantically encrypted data and performing database operations on

the data without decrypting it, and then obtaining the data.

It is respectfully submitted that the cited portion of

Goldstein in no way relates to the features of the claimed

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present invention (as now even more clearly recited in amended
independent claims 30, 33, 34, 37 and 39-42) whereby all of the
database data segments in the data segment group(s) that are the
target of the search, as specified by a stored item category
title (claims 30, 40 and 41), or that correspond to column item
category titles of a first kind (claims 33, 34, 37, 39 and 42),
are encrypted using a same column key, and whereby the (column)
item category titles identify respective categories of the data
segments.

In addition, it is respectfully submitted that Goldstein
does not disclose performing different types of encryption on
groups of data segments depending on the category (item category
title) to which the data segments belong.

Still further, it is again respectfully submitted that
Taguchi et al merely discloses different encryption keys are used
for data of different attribute types. And it is respectfully
submitted that Taguchi et al does not at all disclose, teach or
suggest encrypting data segments row-by-row using different row
keys, if the data segments form a data segment group(s)
corresponding to item category titles other than the stored item
category titles (a data segment group that is not specified as a
search target in accordance with a stored item category title),
or if the data segments are in data segment groups corresponding
to column item category titles of a second kind, whereby the

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(column) item category titles identify respective categories of
the data segments, in the manner of the present invention as
recited in clarified amended independent claims 30, 33, 34, 37
and 39-42.

In view of the foregoing, it is respectfully submitted that
the present invention as recited in clarified amended independent
claims 30, 33, 34, 37 and 39-42, as well as claims 31, 32, 35, 36
and 38 respectively depending therefrom, clearly patentably
distinguishes over the combination of Goldstein and Taguchi et al
under 35 USC 103.

* *

Entry of this Amendment, allowance of the claims and the
passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or
recommendations, the Examiner is invited to telephone the
undersigned for prompt action.

Respectfully submitted,

/Douglas Holtz/

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